

1. An Examiner's Amendment entered below is required to put the application in condition for allowance. The Examiner's Amendment is entered relative to Applicant's **3rd Proposed Amendment for Entry by Examiner** (received via fax and entered 2/27/2008).

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an email response from Attorney Shelley Beckstrand (#24886) on 2/26/2008.

Claims 12, 13, 14, and 32 of the application relative to Applicant's **3rd Proposed Amendment for Entry by Examiner** has been amended as follows:

In the claims:

Claim 12, at line 4 of the claim, replace the word 'quantity' in 'said quantity projections' with the word 'volume' as follows: '*...said volume ~~quantity~~ projections...*'

Claim 13, at line 3 of the claim: replace the word 'quantity' in 'said quantity projections' with the word 'volume' as follows: '*...said volume ~~quantity~~ projections...*'

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Claim 14, at line 20 of the claim: insert 'volume of' at 'projected volume of material returns...'

Claim 32 (at line 1 of the claim): replace 'A computer program product for...' with 'A computer program product on a computer readable medium comprising instructions executable by a processor for...comprising:

Claim 32 (at lines 7 and 8 of the claim): delete the entire limitation as follows: ~~a computer readable medium comprising program instructions executable by a processor;~~

REASONS FOR ALLOWANCE

3. Claims 1, 3, 5-8, 12-14, and 19-32 are allowed.

4. The following is an examiner's statement of reasons for allowance:

The invention is a computer-implemented method for planning workload staffing requirements for a product demanufacturing operation. Claims 1, 14, 19, and 32 are the independent claims of the present invention, each independent claim having substantially similar scope with respect to claimed features found patentably distinct over the prior art of record.

None of the prior art of record, alone or in combination, teach or fairly suggest the detailed, computer-spreadsheet-based workload planning method of determining a summation of staffing requirements for processing the demanufacturing of products for a plurality of customers, the determining of staffing requirements adjusted for employee availability and based on a projected quantity (by volume or by weight) of material returns (products to be demanufactured) for each of a plurality of customers, and on a unique complexity factor for each customer, the customer-unique complexity factor determined by prototyping the demanufacturing of a quantity of customer product while applying critical operations in the prototyping as required for each customer, and further updating and adjusting a workload planning spreadsheet for changes in projected quantity and unique complexity factor.

These features of the present invention distinguish the invention over the closest prior art of record as follows:

Grenchus et al ("Demanufacturing of Information Technology Equipment" in Proceedings of the 1997 IEEE International Symposium on Electronics and the Environment, 1997, pgs 157-160) teaches various aspects and considerations in the management of a demanufacturing production line; however, Grenchus et al does not teach determining a customer unique complexity factor for each of a plurality of customers where the unique complexity factor is determined from critical operations and a projected quantity for each customer, and therefrom determining a summation of staffing requirements for a demanufacturing production line in the manner recited by claims 1, 14, 19 and 32.

Suzuki et al (US Pat. 6,226,617) teaches a demanufacturing process applying information on products to be demanufactured to maximize utility and efficiency of the demanufacturing process for a given product, including applying information on critical operations with respect to the product; however, Suzuki et al. does not teach determining a customer unique complexity factor for each of a plurality of customers where the unique complexity factor is determined from prototype dismantling applying customer-unique critical operations and a projected quantity of material returns for each customer, and therefrom determining the summation of staffing requirements for the demanufacturing production line in the manner recited by claims 1, 14, 19 and 32.

Fields et al (US Pat. 5,111,391) and Yuri et al (US Pat. 6,249,715) teach generally in the art of manufacturing production planning including aspects of the workload planning model of the present invention, including accounting for staff availability scheduling; however, neither Fields nor Yuri teach determining a customer

unique complexity factor for each of a plurality of customers where the unique complexity factor is determined from prototype dismantling applying customer-unique critical operations and a projected quantity of material returns for each customer, and therefrom determining the summation of staffing requirements for the demanufacturing production line in the manner recited by claims 1, 14, 19 and 32.

Tani et al (US Pat. No. 6,529,788) teaches a demanufacturing process applying information gained in product development to maximize recovery and recycling of parts from retired products, including finding (an undefined) "recycle factor" and a production schedule; however, Tani et al does not teach determining a customer unique complexity factor for each of a plurality of customers where the unique complexity factor is determined from prototype dismantling applying customer-unique critical operations and a projected quantity of material returns for the customer, and therefrom determining the summation of staffing requirements for the demanufacturing production line (Tani's "production schedule" is a schedule for the production of new, i.e. refurbished or rebuilt product, not for the demanufacturing of the product), in the manner recited by claims 1, 14, 19 and 32.

Abbott et al (US Pat. No. 7,251,611) teaches determining an optimal dismantling configuration for feasibly and economically meeting a parts demand from a supply of used equipment slated for salvage, sale, or end of life, including factoring in the complexity and cost of recovering parts from specific equipment types; however, Abbott et al does not teach determining a customer unique complexity factor for each of a plurality of customers where the unique complexity factor is determined from critical

operations and a projected quantity for each customer, and therefrom determining a summation of staffing requirements for a demanufacturing production line in the manner recited by claims 1, 14, 19 and 32.

Grenchus et al (US Pat. No. 7,054,824 – by a different inventive entity) teaches determining the optimal level of demanufacturing for a product based on current costs in the demanufacturing process and prices for products and parts recovered, including a spreadsheet model using a determined labor expense to demanufacture a particular product from prototyping of the dismantling process; however, Grenchus et al does not teach determining a customer unique complexity factor for each of a plurality of customers where the unique complexity factor is determined from critical operations and a projected quantity for each customer, and therefrom determining a summation of staffing requirements for a demanufacturing production line in the manner recited by claims 1, 14, 19 and 32.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Robertson whose telephone number is (571)272-8220. The examiner can normally be reached on 8:45am to 4:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dave Robertson/
Examiner, Art Unit 3623

/Romain Jeanty/
Primary Examiner, Art Unit 3623

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